

Amendments to the Specification:

Replace the paragraph on page 18, line 24 to page 19, line 4 with the following amended paragraph:

On the transmitter-end section of the channel, it is possible to detect a signal KS present on the channel, this signal KS being able to be dependent both on a pulse sequence which is dependent on the transmission signal Sin and on an interference signal which is injected into the channel externally. This signal KS present on the channel is fed back to the transmission apparatus ~~K4~~ 1 in order to be able to detect interference signals on the channel, as will be explained below.

Replace the paragraph on page 19, line 24 to page 20, line 14 with the following amended paragraph:

On the basis of this bivalent transmission signal Sin, the inventive method shown in Fig. 2 involves a pulse sequence being generated which has a positive pulse when the signal level of the transmission signal Sin rises from the first level P1 to the second level P2, that is to say when there is a rising edge of this transmission signal Sin, as is the case at times t1 and t5 in Fig. 2. Upon every rising edge of the transmission signal Sin, a pulse sequence comprising a positive pulse is therefore generated. These pulses generated in the transmission apparatus shown in Fig. 1 bring about a corresponding detectable signal pulse on the channel, with this signal pulse ~~RS~~ PS which can be detected on the channel possibly appearing with a delay with respect to the pulse in the pulse signal PS or appearing smooth, depending on

the channel properties, although this is not taken into account in the illustration shown in Fig. 2.

Replace the paragraph on page 22, line 19 to page 23, line 7 with the following amended paragraph:

The duration of the pulse sequences ~~PS1, PS2~~ PF1, PF2 is normally shorter than the duration for which the transmission signal Sin assumes the second signal level P2 or the first signal level P1 at consecutive times. In the case of the method shown in Fig. 3, detection of an interference pulse is followed by the first pulse sequence ~~PS1~~ PF1 being repeated if the transmission signal Sin continues to be at the second signal level P2. Correspondingly, the second pulse sequence ~~PS2~~ PF2 is repeated after an interference pulse has been detected on the channel, if the transmission signal Sin has the first signal level P1. If the transmission signal Sin has changed its level in the interim - during the occurrence of an interference signal - then, when the interference has subsided, a signal sequence is transmitted which is associated with the present level or state of the transmission signal Sin.

Replace the paragraph on page 36, line 1 to page 37, line 2 with the following amended paragraph:

In the detector circuit DET, it is not possible to distinguish in the example whether the rise or fall in the channel signal KS to a value which is outside of the range is brought about by an interference signal or one of the transistors T1, T2 turned on by the pulses PSH, PSL, which means that the interference detection signal EMI also

assumes the value of a logic low level for a useful signal pulse. To prevent such a useful pulse from being detected as an interference signal, the actuating signal SRE is generated in the actuating-signal-generating circuit on the basis of an enable signal FS which is dependent on the pulse sequences PSH, PSL. This enable signal FS is supplied to a NAND gate NA3 whose output produces the actuating signal SRE. The NAND gate NA3 is also supplied with the interference signal detection signal EMI directly and with the interference signal detection signal EMI delayed by means of a delay element DL4 and inverted by means of a Schmitt trigger ST4. The delay element DL4 is designed to pass on level changes in the interference signal detection signal EMI from a low level to a high level delayed by a delay time τ_2 , while level changes from a high level to a low level are passed on without any delay. If the level of the interference signal detection signal EMI thus changes from a low level to a high level when an interference signal or else a useful signal has subsided, then this level change is passed on only with a delay, which means that the interference signal detection signal EMI and the signal produced at the output of the Schmitt trigger ~~SD4~~ ST4 do not differ for a period τ_2 after this level change, with both assuming the value of a logic 1.